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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/669,582	09/24/2003	Neil James Gordon	7791MC2	5634
27752	7590	04/26/2004	EXAMINER	
THE PROCTER & GAMBLE COMPANY INTELLECTUAL PROPERTY DIVISION WINTON HILL TECHNICAL CENTER - BOX 161 6110 CENTER HILL AVENUE CINCINNATI, OH 45224			HARDEE, JOHN R	
			ART UNIT	PAPER NUMBER
			1751	

DATE MAILED: 04/26/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/669,582

Applicant(s)

GORDON, NEIL JAMES

Examiner

John R. Hardee

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_.

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 112***

1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. Claims 1-16 are rejected under 35 U.S.C. 112, first paragraph, as based on a disclosure which is not enabling. A chemical structure, critical or essential to the practice of the invention, but not included in the claim(s) is not enabled by the disclosure. See *In re Mayhew*, 527 F.2d 1229, 188 USPQ 356 (CCPA 1976). The structure "R—S—S—" has an empty sulfur valence. This structure is unstable and essentially non-existent. Applicant should replace the empty valence with whatever groups applicant has basis in the specification for. Applicant is cautioned to refrain from adding new matter.

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 1-16 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. As noted above, applicant has recited the presence of a chemical species which does not exist. Without knowing what this species can be, in terms of chemistry and enablement, the metes and bounds of the claims cannot be determined. In claim 5, "dithiodipropionic" is misspelled.

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Claims 5 and 13 or 16 recite different species. Is this intentional? If applicant really meant to recite dithiopropionic acid in claims 13 and 16, this should be added to the specification.

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

7. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to

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consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

8. Claims 1-8 and 11-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over WO 93/09215 in view of WO 97/46658. The '215 reference discloses liquid detergent compositions comprising conventional detergency ingredients and color stabilizing compounds which yield sulfite ions in the finished product (abstract). The color stabilizing compounds are present at 0.001-10% by weight, and may be sulfite salts, hydrogensulfite (bisulfite) salts or pyrosulfite (metabisulfite) salts or cysteine or mixtures thereof (p. 3, 2<sup>nd</sup> para.) Suitable detergents include nonionics, anionics, cationics or zwitterionics (p. 5, top). Specific cationic fabric softeners are disclosed in the paragraph bridging pp. 6-7. The cationics recited in claims 6 and 7 are not disclosed, but the examiner takes the position that these are well known fabric softeners, and their use would be obvious in view of the general disclosure of cationics, as well as their well known advantages as biodegradable substitutes for the cationics which are disclosed in the reference, these cationics also being well known fabric softeners. Use of citric acid, described by applicant as a crystal growth inhibitor, is disclosed at the bottom of p. 8. Compositions according to the invention preferably contain enzymes, and may further comprise any conventional enzyme stabilizing system (p. 9, 2<sup>nd</sup> para.) Contact with fabric may be reasonably inferred, as that is the intended purpose of the compositions. Exposure to light may be reasonably inferred, as clothing is normally worn outdoors. This reference does not disclose the use of organic sulfur compounds as recited in part i) of the independent claims.

The '658 reference discloses enzyme granulates containing an organic disulfide compound of the form R-S-S-R'. The granulates may be used in detergent and cleanser compositions (abstract). The R and R' groups may be alkyl residues, and they may be substituted with carboxy groups (p. 3, last para.) The utility of dithiodiglycolic acid, a one-carbon homolog of dithiodipropionic acid, is specifically disclosed. The disulfide compounds are used as stabilizers for enzymes (p. 14, 2<sup>nd</sup>. para.) Note the examples on p. 17, which comprise 3.2-19.5% of cystine.

It would have been obvious at the time the invention was made to incorporate the disulfide compounds of the '658 reference into the detergent compositions of the '215, because the '215 discloses that enzymes are preferably added, and any known stabilizer may be added as well, and the '658 teaches that disulfide compounds are useful enzyme stabilizers for enzymes in detergent compositions.

The examiner believes that the species recited in claims 5, 13 and 16 should be dithiodipropionic acid, and these claims have been rejected on that basis.

9. Claims 1-5, 8, 11, 12, 14 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over WO 93/09215 in view of Jarowenko, US 3,753,913. The '215 reference is summarized above. WO 93/09215 does not disclose the use of thiodipropionic acid. Nonetheless, it would have been obvious at the time the invention was made to include thiodipropionic acid in the composition of WO 93/09215, because this reference discloses at the bottom of p. 4 that conventional builders may be added, and Jarowenko teaches that sodium thiodipropionate is a useful builder in laundry detergents.

***Allowable Subject Matter***

10. Claims 9 and 10 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, first and second paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

11. The following is a statement of reasons for the indication of allowable subject matter: The closest prior art of record is the references cited above. None of these references discloses or makes obvious the incorporation of a dye fixative or an abrasion reducing polymer into the disclosed compositions.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to the examiner, Dr. John R. Hardee, whose telephone number is (571) 272-1318. The examiner can normally be reached on Monday through Friday from 8:00 until 4:30. In the event that the examiner is not available, his supervisor, Dr. Yogendra Gupta, may be reached at (571) 272-1316.

The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should

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you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to read "J. Hardee", with a stylized, cursive script.

John R. Hardee

Primary Examiner

April 22, 2004